

Notice of Allowability

Application No.

10/658,106

Examiner

Ardith E. Hertzog

Applicant(s)

WATANABE ET AL.

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to all papers filed 9/26/05.
2. ☒ The allowed claim(s) is/are 9-21, now numbered 1-13, respectively.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: In view of the "Amendment" filed September 26, 2005, it is **agreed** that this application is in condition for allowance. In particular, applicant's arguments concerning the prior art applied in the prior Office action (i.e., that mailed June 22, 2005) have been carefully considered and, **with respect to the claims as amended**, found **persuasive**. In particular, it is **agreed** that:

According to Uehara [(i.e., JP 200103101 A)], when the grinding process is stopped, the production of hydrogen gas is suspended automatically. (See Uehara paragraph 0021.) Therefore, apparently Uehara did not appreciate that **autonomous** production of hydrogen would occur. Furthermore Uehara makes a point that it is desirable to remove suspended matter by circulating water with a pump. (Uehara paragraph 0031.) This indicates that Uehara is relying on generation of hydrogen at the surface of the block being ground, and is not waiting for **autonomous** generation of hydrogen to occur **within the particles**.

In short, **the present inventors are collecting hydrogen generated autonomously after a time, whereas Uehara et al. are discarding the particles before autonomous generation has a chance to occur.** (remarks accompanying amendment at pp. 5-6, emphasis added)

Thus, as the prior art of record—including that newly cited herewith—fails to teach or to have suggested methods of producing hydrogen gas, including **continued autonomous** evolution of said gas **within microscopic cracks produced in the surfaces of metallic particles**, per the new instant independent claim 9, applicant's claims are now considered allowable over the prior art of record. The newly cited references, US 6,638,493 and its parent US 6,506,360, are considered pertinent to applicant's disclosure yet less material than Uehara; they have been cited simply for

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their discussion of the state of art re hydrogen generation and aluminum oxide production (see "Background of the Invention" section, especially in US 6,638,493).

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

3. Any inquiry concerning this communication should be directed to Ardith E. Hertzog at 571-272-1347. The examiner can normally be reached on Monday through Friday (from about 7:30 a.m. - 3:30 p.m.).

4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman, can be reached at 571-272-1358. The central fax number for all communications is now 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. For any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


AEH
December 5, 2005


STANLEY S. SILVERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700